

The structure of hildecarpin, an insect antifeedant 6a-hydroxypterocarpan isolated from the roots of *Tephrosia hildebrandtii* has been confirmed by a combination of degradation reactions, NMR and mass spectra. Hildecarpin has been dehydrated to the corresponding pterocarpene 3-hydroxy-2-methoxy-8,9-methylenedioxypterocarpene. Hydrogenation and hydrogenolysis of the pterocarpene has afforded the isoflavan 2', 7-dihydroxy-6-methoxy-4',5'-methylenedioxyisoflavan, acetylation of which has led to 2', 7-diacet6xy-6-methoxy-4',5'-methylenedioxyisoflavan. The NMR and mass spectra of the degradation products confirm the structure previously assigned to hildecarpin.